

CLAIMS

1. **A load transferal device**, said device being defined at least in part by
a space confinement housing which provides spaced exterior surface
adapted to bear against surfaces of spaced members which are to have a
5 capability over at least some distance and some angular disposition of moving
relatively towards each other and/or angling relative to each other, and
at least one force transferring media within said housing.
2. A device of claim 1 which is an implant useful for cushioning directly or
indirectly bone members.
- 10 3. **An implant useful as a prosthetic replacement of an intervertebral
disk**, said implant being defined at least in part by
a space confinement housing which provides, as an at least in part
simulation of such a disk, top and bottom surfaces adapted (directly or
indirectly) to bear at least in part respectively on the upper and lower vertebral
15 bodies between which it might be interposed as an implant, and
at least one force transferring media within said housing,
wherein said housing under the influence of the confined media has a
capability of allowing said top and bottom surfaces to be angularly disposed
relative to each other in a number of different conditions (simulating those of
20 an intervertebral disk) as a result of an ability of the housing under diverse
loadings (such as those of real or simulated angular dispositions of proximate
vertebral bodies between which the implant might be inserted) to compact in
part and substantially correspondingly expand in part.
4. An implant of claim 3 which has one or more motion limiting feature to
25 restrict the maximum separation of said top and bottom surfaces.
5. An implant of claim 4 wherein said implant confines a force transferring
media inside a housing capable of being compressed and/or angularly distorted
by the effect of proximate vertebral bodies, whereby any such angular
distortion, in part, compresses (and displaces some of the media) and, in part,
30 expands under the action at least in part of displaced media),
and wherein the media assisted expansion is limited by at least one of:

- (i) motion limiters external of yet attached to the housing, and/or
- (ii) motion limiters internally of yet attached to the housing.

6. A device of claim 3, 4 or 5 wherein said housing is in the form of a bellows or some equivalent (whether or unitary or fabricated form).

5 7. A device of claim 6 wherein said housing is substantially of or is an adaption of a form substantially as depicted in any one or more of the accompanying drawings.

8. A device of any one of claims 4 to 7 said media is at least in part liquid and/or at least in part gaseous and/or a resilient (at least in part) solid(s)
10 material(s).

9. **The use of an implant defined in any one of claims 4 to 8 as a replacement for an intervertebral disk.**

10. **A method of replacing an intervertebral disk which comprises or includes at least**

15 (if necessary) opening the annulus,
(if necessary) removing the damaged or defective intervertebral disk, or residue thereof, and

interposing an implant as defined in any one of claims 4 to 8 between the related proximal vertebral bodies,

20 (and if possible and/or necessary and/or desirable) restoring to its functional positioning the annulus),

(and, if the implant is not of a kind motion limited internally and/or externally of the housing to itself, at any appropriate stage, motion limiting the implant to one or other, or both, of said related proximal vertebral bodies).

25 11. **Interposed between, or for imposition between, vertebral bodies in a spinal structure, an implant as a prosthetic replacement of an intervertebral disk,**

wherein said implant confines a force transferring media inside a housing capable of being compressed and/or angularly distorted by the effect of
30 proximate vertebral bodies, whereby any such angular distortion, in part,

compresses (and displaces some of the media) and, in part, expands (under the action at least in part of displaced media),

and wherein the media assisted expansion is limited by at least one of:

- (i) motion limiters external of yet attached to the housing,
- 5 (ii) motion limiters internally of yet attached to the housing, and/or
- (iii) motion limiters between each adjacent vertebral body and distal parts of the housing or motion limiters not attached to the housing.